



Establishment
27/11/1928

SNJB (Jain Gurukul's)

**K.K.H. Abad Arts, S.M.G. Lodha Commerce & S.P.H. Jain Science College
Neminagar, Chandwad-423101, Dist.-Nashik, Maharashtra**

(Affiliated to Savitribai Phule Pune University) Id. No.PU/NS/AC/015/1970

(02556) Off. 252125 Res.252126 Tel. Fax:02556-252125

• P. O. Box No.: 6 • E-mail : alccchandwad@yahoo.co.in

• Website : www.acschandwadcollege.com

DST-FIST Funded (2018-19)

UGC-NSQF Courses (B.Voc. & CC)

Best College Award by Savitribai Phule Pune University (2015-16)

List of Documents: F.Y.B.Sc. Field Visit

Sr. No.	Document Name	Page No.
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F. Y. B.Sc. BOTANY PRACTICAL PAPER – III

Based on Theory Paper I and Paper II

1. Modifications of root and stem. 1P
2. Study of leaf (parts of leaf, types: simple and compound; sessile and petiolate; venation: parallel and reticulate) (Glossary of terminologies be given with the protocol). 1P
3. Study of Inflorescence. 1P
 - a) Racemose: Raceme, Spike, Spadix, Catkin, Umbel and Capitulum.
 - b) Cymose: Solitary cyme, Uniparous cyme: helicoid and scorpiod, Biparous cyme and Multiparous cyme.
 - c) Special type: Verticillaster, Hypanthodium and Cyathium.
4. Study of flower with respect to Calyx, Corolla and Perianth: (Glossary of terminologies is given with the protocol). 1P
5. Study of flower with respect to Androecium and Gynoecium. 1P
6. Study of fruits and seed with suitable examples. 1P

Simple fruit: fleshy – Berry and Drupe; Dry: Achene, Cypsella and Legume
Aggregate fruit: Etaerio of follicles and Etaerio of Berries.
Multiple fruit: Syconus and Sorosis.
Seed: parts of seed and types of seed (monocotyledonous dicotyledonous, albuminous, exalbuminous)
7. Study of internal primary structure of dicotyledonous root, stem and leaf.
e.g. Sunflower. 1P
8. Study of internal primary structure of monocotyledonous root, stem and leaf.
e.g. Maize. 1P
9. Study of *Spirogyra*. 1P
10. Study of *Cystopus (Albugo)* 1P
11. Study of *Riccia*. 1P
12. Study of *Nephorlepis*. 1P
13. Study of *Cycas*. 1P
14. Study of plant resources in industries: food, fodder, fiber, medicine, timber and gum (one example of each) 1P



15. Study of artificial plant propagation: 1P
 Stem cutting (demonstration of three subtypes)
 Air Layering, Approach grafting, and T- budding
16. Study of plant tissue culture techniques: Demonstration of various stages. 1P
17. Cultivation of Oyster mushroom and demonstration of value added mushroom products. 1P
18. Study of plant resources used in biopesticides. 1P
 (Indiara, Azadiractin)
19. Study of industrially important fungi and their products. 1P
Ganoderma: *Ganoderma* tablets, *Aspergillus*: citric acid; *Yeast*: Bakery products; *Penicillium*: Penicillin and *Trichoderma*.
20. Study of types of Biofertilizers: *Rhizobium*, *Azatobacter*, BGA, *Azolla*.
 Phosphate Solubilizing Bacteria. Green manure (preferably *Crotolaria*/
Gliricidia/locally available material). 1P
21. Preparation of Jam and Squash. 1P
22. A) One botanical excursion to study plant diversity.
 B) Visit to one of the following industries. (Study/project report is compulsory).
 1) Floriculture unit 2) Greenhouse 3) Pharmaceutical industry 4) Nursery and
 5) Mushroom cultivation unit.

(Note: Visits mentioned in the practical No. 22 (A & B) are compulsory. It carries 10 marks at the time of annual practical examination.)



SNJB'S

K.K.H.A Arts, S.M.G.L. Comm., & S.P.H.J.Science, Chandwad-423101

Department of Botany

To
Principal,
K.K.H.A Arts, S.M.G.L. Comm., & S.P.H.J.Science
College, Neminagar Chandwad Dist.- Nashik-423101

Subject- To avail permission for the educational tour

Sir,

With reference to the subject cited above, as per the curriculum of Savitribai Phule Pune University Pune for F.Y.B.Sc Botany; it is compulsory to visit Biodiversity rich places for study. In this regard we have planned tour of F.Y.B.Sc students On 07/09/1018 at Saputara . 46 Students and 06 faculty members are participating in the tour.

List of Staff and Students enclosed herewith for your kind information.
Kindly avail the permission and do the needful.

Thanking You.

Yours Faithfully


HEAD

Department of Botany
SNJB's Department of Botany
& S.P.H.J. Science College,
Chandwad-423 101 Dist-Nashik



श्री नेमिनाथ जैन ब्रह्मचर्याश्रम (जैन गुरुकुल) संचलित,



स्थापना
१७/११/१९२८

कर्मवीर केशवलालजी हरकचंदजी आबड कला, श्रीमान मोतीलालजी गिरीधारीलालजी लोढा
ताणिज्य व श्रीमान पी. एच. जैन विज्ञान महाविद्यालय

नेमिनगर, चांदवड - ४२३ १०१ जि. नाशिक

☎ : (02556) Off. 252125 Tele Fax : (02556) 252125
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Junior College Code No. 13.01.002
Senior College Code No. 088

SNJB

(Affiliated to University of Pune) Id. No. PU/NS/AC/015/1970

Website : acschandwadcollege.com (NAAC - RE-ACCREDITED - 'B')

डॉ. जी. एच. जैन,
प्राचार्य

M.Sc., A.D.C.S.A & A, Ph.D.

Member - B.O.S. (Physics) University of Pune

“उत्कृष्ट महाविद्यालय पुरस्कार २०१५-१६ सावित्रीबाई फुले पुणे विद्यापीठ, पुणे

जावक क्र. : 324/ALJCC/2018

दि. 05/09/2018

To
Hon. Administrative Officer,
Shree Neminath Jain Brahmacharyashram's,
College, Neminagar, Chandwad Dist. - Nashik-423101

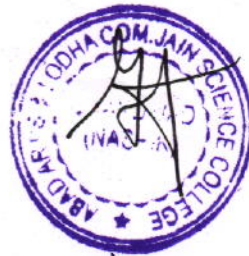
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Thanking You.



Recd
05.09.18

Yours Faithfully

PRINCIPAL

K.K.H.A. Art's, S.M.G.L.Comm.
& S.P.H.J. Science College,
Chandwad, Dist-Nashik 423101

F.Y.B.Sc-Educational Tour- List

Sept.2018

Sr.No	NAME OF STUDENT	GENDER	MOBILE NO	REMARK
1	SHUKLA SEJAL ATUL	FEMALE	9404805141	
2	AFRE AISHVARYA RAJESH	FEMALE	8308309941	
3	JADHAV SIMA BALASAHEB	FEMALE	9923574840	
4	PAWAR GAYATRI DADAJI	FEMALE	-	
5	AHIRRAO GAYATRI MAHARU	FEMALE	8830825975	
6	PAGAR GITANJALI KAILAS	FEMALE	-	
7	NIKAM ASHWINI VASANT	FEMALE	9970698599	
8	JAGTAP KAVERI DIPAK	FEMALE	9420366407	
9	SHARMA VAISHANVI SAMEER	FEMALE	9403499570	
10	KSHIRSAGAR SONALI DIPAK	FEMALE	9922154702	
11	AHER PRATIKSHA MADHUKAR	FEMALE	9011891231	
12	SONAVANE JAGRUTI BHANUDAS	FEMALE	8805725244	
13	SONAWANE RUTUJA KARBHARI	FEMALE	9359946224	
14	SONAWANE POOJA KANTILAL	FEMALE	7030828893	
15	THOMBARE CHAITALI MARUTI	FEMALE	9921232556	
16	KATE PRAJAKTA KAILAS	FEMALE	9767488191	
17	PAWAR TEJASWINI MADHUKAR	FEMALE	9860710717	
18	GANGURDE SUVARNA DIPAK	FEMALE	8390982484	
19	PAWAR KAJAL KAILAS	FEMALE	9665071407	
20	MORE ROHINI MOHAN	FEMALE	9049579755	
21	PAWAR JANHAVI SANJAY	FEMALE	7083094262	
22	PATHAN NAZMEEN MOH.SHAFIQ	FEMALE	9011512285	
23	SUTANE ANJALI PRASHANT	FEMALE	9423925944	
24	THAKARE JAGRUTI RAMESH	FEMALE	9423539687	
25	THAKARE KOMAL DNYANESHWAR	FEMALE	9921293905	
26	PAGAR KALYANI SUNIL	FEMALE	9823093701	
27	DEORE KAVERI DILIP	FEMALE	9960465848	
28	DEORE KRANTI KAILAS	FEMALE	8766909374	
29	DESAI YASH BALASAHEB	MALE	8308039505	
30	LANDAGE KETAN RAJENDRA	MALE	7796757577	
31	SHINDE KIRAN SURYABHAN	MALE	7057229597	
32	GANGURDE SUDARSHAN VITHOBA	MALE	7058997024	
33	SHINDE ASHISH PRADIP	MALE	7719931120	
34	KHUTE SUSHANT POTAT	MALE	8975884228	
35	SHINDE SUBHASH RAOSAHEB	MALE	7261992295	
36	THAKARE HARSHAD RAMDAS	MALE	7620217423	
37	NIKAM OMPRAKASH VIKRAM	MALE	8605176412	
38	DIVATE BHUSHAN DINKAR	MALE	9309933210	
39	KHAIRNAR SAPANA SOMNATH	FEMALE	9373198727	
40	KHAIRE POOJA BABAJI	FEMALE	9850647503	
41	PAGAR SUDARSHAN MADHAV	MALE	7719010708	
42	SHINDE PRASAD GORAKH	MALE	9527743148	
43	TOPE SANKET BALKRUSHNA	MALE	7796832787	
44	AKASH SUNIL DHEPALE	MALE	9960675228	
45	DEORE SEJAL SUNIL	FEMALE	-	
46	CHAVAN PRATIK SOMNATH	MALE	8766494017	



FACULTY MEMBERS				
1	PATIL MAYUR SURESH	MALE	8275054036	
2	WAGH SWAPNIL DAYARAM	MALE	8275586567	
3	JADHAV PRATIKSHA S	FEMALE	9673729041	
4	TELANG YOGITA BALASAHEB	FEMALE	9922533837	
5	NIKUBH NITIN MOTIRAM	MALE	9421502723	
6	GANGURDE AVINASH ISHWAR	MALE	8329713571	
7	GANGURDE BHUSHAN DHONDIRAM	MALE	9545194956	



Topic

Page:.....Date:...../...../.....

Tour Report :-

Study Tour Based on Botany & Zoology. We had visited to Saputara on 7 September 2018, Friday. This Journey started from Chandwad.

Gathered at Bhaironath Hotel at 7am → 8am left Chandwad → visited at Chankapure Dam & study about Lichen → Visit to Saputara → Mountain → study of Nephrolepis & different plants → Visit to aquarium at Saputara. Study about various species of fishes → Saputara Museum → collecting information about stages of human evolution & eternal commodities → Return to Chandwad at 9 pm.



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CHANKAPUR DAM

- * **Chankapur Dam:** - Chankapur Dam, is an earthfill dam on the Girna River near Ahonda in Kalwan tehsil of Nashik district in the state of Maharashtra in India. The dam were built in 19th century by British. Chankapur is one of the biggest dam in Maharashtra.



Chanakapur Dam
INDIA-WRIS

- * **Specifications:** - The height of the dam above lowest foundation is 41 m (135 ft) while the length is 3,705 m (12,156 ft). The volume content is 2,123 km³ (509 cu mi) & gross storage capacity is 79,690.00 km³ (19,118,69 cu mi).

- * **Purpose:** - Irrigation.

CHANKAPUR DAM

- * Locality Name :- chankapur.
- * Taluka Name :- Kalwan.
- * District :- Nashik.
- * State :- Maharashtra.
- * Region :- Khandesh & Northern Maharashtra.
- * Division :- Nashik.
- * Language :- Marathi, Hindi, Ahirani & Bhili.

- * How to reach chankapur :-

By Road :- Patana, Nashik are the nearby by towns to chankapur having road connectivity to chankapur.

- * Distance between chankapur dam & Saputara :-

Distance Summary :-

Origin :- chankapur dam, Nashik, Maharashtra, India.

Destination :- Saputara, Gujarat, India.

Driving Distance :- 25 kms or 15.5 miles.

Driving Time :- 30 minutes.

- * Distance between chandwad to chankapur dam :-

Driving Distance :- 80 kms.

Driving Time :- 1 hr, 36 minutes.



CRUSTOSE LICHEN

* Information:-

Crustose lichens form a crust that strongly adheres to the substrate (soil, rock, tree bark, etc). Making separation from the substrate impossible without destruction.

The basic structure of crustose lichen consists of a cortex layer, an algal layer, & a medulla. The upper cortex layer, an algal layer & a medulla. The upper cortex layer is differentiated & is usually pigmented. The algal layer lies beneath the cortex.

The surface of crustose lichens is characterized by branching cracks that periodically close in response to climatic variations (such as alternate wetting & drying regimes).

* Distribution & Habitat:-

Crustose lichens can be found in a wide range of areas. They can be found, among others, together with epiphytic algae & liverworts, living on the surfaces of leaves of tropical evergreen trees & shrubs. They also thrive in carbonate-rich karst areas.





FOLIOSE LICHEN

* Information:- Foliose Lichen is one of a variety of lichens, which are complex organisms that arise from the symbiotic relationship between fungi & a photosynthetic partner, typically algae. This partnership allows lichen to live in diverse climates that can range from cold, dry mountains to wet, warm valleys. Their lifespan averages between 30 & 60 years.

Lichens have a main body part called the thallus, which is composed of hyphae & houses the cortex & medulla.

* Pollution:- There is a direct correlation between pollution & the abundance & distribution of lichen. Foliose lichens are extremely sensitive to Sulphur dioxide, which is a by-product of atmospheric pollution.

* Reproduction:- The reproduction of foliose lichen can occur either asexually or sexually.





ABAD JYOTI
CHANDWAD
(WASHIKI)
JAIN SCIENCE

NEPHROLIPS

Nephrolepis is a genus of about 30 species of ferns in the family Nephrolepidaceae. Commonly referred to as the macho ferns or sword ferns, Nephrolepis is the only genus in the family.

Nephrolepidaceae that is part of the eupolypods I clade of the order Polypodiales, in the class polypodiopsida

Scientific Name: Nephrolepis

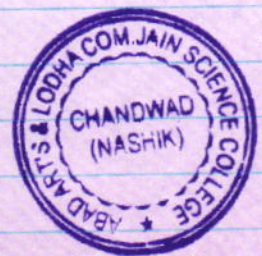
Kingdom: - Plantae

Class: - Polypodiopsida

Order: - Polypodiales

Family: - Nephrolepidaceae

Species: - N. exaltata





Habit & Habitat :- Nephrolepis species are distributed in the tropics of the entire world.

About 5 species :-

- 1] *N. cordifolia*
- 2] *N. exaltata*
- 3] *N. volubilis*
- 4] *N. acuta*
- 5] *N. ramosa*

Reproduction :- 1] Vegetative Reproduction.

2] Sexual Reproduction.

External features :- The mature plant p. body is parasphytic & can be differentiated into rhizome, roots & leaves.



AQUARIUM In SAPUTARA



+ Information:-

Famous For:- In this aquarium different types of fish with lovely variety of colours. In this aquarium you feel like real fish swim in the sea water.

Aquarium:- It is a very small aquarium situated next to the museum. It is provided with few fish tanks containing different types of fish of various countries.



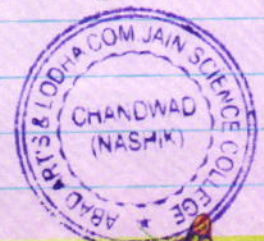


ABD KATI'S & LODHA COM. JAIN SCIENCE COLLEGE
CHANDWAD
(NASHIK)



* Information:-

Saputara Museum, otherwise called Saputara Tribal Museum, is a little historical center situated on the highway prompting Surat & Nashik. Accumulations of the historical center give a knowledge into the way of life of the inborn populace of the Dang District, of which the goal shapes a section. The Dang District is home to almost 300 towns, whose larger part populace is of ancestral group.



This historical center was worked keeping in mind the end goal to familiarize the travelers with the inborn culture & way of life of this populace section of the locale. Different inborn groups living in the locale incorporate Bhils, Kumbhis, Gamits, & Warlis. Situated in the core of the city, Saputara Museum exhibits an assortment of ancient rarities like garments, utensils, conventional articles, ways of life, house objects, melodic instruments & decorations.

Accumulations of the exhibition hall delineates the regular day to day existence of the innate groups of the area. This historical center additionally houses different relics that have a place with the Dang class of Saputara.

